DOCUMENT RESUME

ED 408 134 RC 021 048

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TITLE Relating Affective and Cognitive Study Strategies to Self-Regulated Learning for Rural At-Risk Students.
PUB DATE Mar 97
NOTE 10p.; Paper presented at the Annual Meeting of the American Education Research Association (Chicago, IL, March 24-28, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Affective Measures; *Cognitive Style; *High Risk Students; *High School Students; High Schools; Learning Strategies; Rural Education; Self Efficacy; *Student Motivation; Student Surveys; *Study Skills
IDENTIFIERS *Self Regulated Learning

ABSTRACT

Social cognitive theory suggests that students use both affective and cognitive study strategies in directing their own learning processes. This study explored the correspondences between both strategy types and the self-regulated learning of rural at-risk students. Sixty-seven 11th- and 12th-graders from 12 rural high schools completed the self-regulated learning subscale from Bandura's Multidimensional Scales for Perceived Self-Efficacy. Affective and cognitive learning and study strategies were assessed with the Learning and Study Strategy Inventory. Findings indicate that both strategy domains appear necessary to provide a comprehensive picture of self-regulated learning, particularly affective motivation and concentration and cognitive self-testing. Recommendations on how rural educators might foster these strategies include prompting students to record the work they complete during class to foster motivation, breaking study periods into short sessions to aid student concentration, and having students create questions about the material to encourage self-testing. (Author/TD)

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ED 408 134

Relating Affective and Cognitive Study Strategies to Self-Regulated Learning for Rural At-Risk Students

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Paper presented at the annual meeting of the American Educational Research Association, Chicago

April, 1997

RC021048

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Abstract

Social cognitive theory suggests that students use both affective and cognitive study strategies in directing their own learning processes. This study explored the correspondences between both strategy types and the self-regulated learning of rural at-risk students. Participants from twelve rural high schools completed the self-regulated learning subscale from Bandura's Multidimensional Scales for Perceived Self-Efficacy. Affective and cognitive learning and study strategies were assessed with the Learning and Study Strategy Inventory. Findings indicated that both strategy domains appear necessary to provide a comprehensive picture of self-regulated learning, particularly affective motivation and concentration and cognitive self-testing.

Relating Affective and Cognitive Study Strategies to Self-Regulated Learning for Rural At-Risk Students

Most rural educators would like their students to actively participate in the learning process. Students who believe in their efficacy for self-regulated learning tend to set academic goals and attain higher levels of achievement (Weinstein, Goetz, & Alexander, 1988; Zimmerman, Bandura, & Martinez-Pons, 1992). However, research (e.g., Tuckman, & Sexton, 1989) has shown that students vary in the degree to which they self-regulate the learning process. Determining the specific learning strategies students use as they move toward self-regulation may have important educational implications, particularly for students at risk for school dropout.

This paper presents empirical findings that bear on the relationship between learning and study strategies and self-regulated learning. According to social cognitive theory (Bandura, 1986; 1991), self-regulated learners use both affective and cognitive strategies in directing their own learning processes. Although Paris and Oka (1986) have suggested that self-regulated learning combines motivational will with cognitive skill (see also, Corno, 1986; McCoombs, 1986), little research has been conducted to assess the dual influence of these two components on student self-directed learning. Further, McCaul

(1989) has noted the substantial gap existing in the at-risk literature relative to rural students. Therefore, this study explored the correspondences between both affective and cognitive learning and study strategies, and the self-beliefs of efficacy to regulate learning among rural at-risk students.

Method

Participants (N = 67) were primarily 11th- or 12th-graders, all of whom had been designated as at-risk students, from twelve rural public high schools. An academic counselor serving a five-county area administered the "Self-Efficacy for Self-Regulated Learning" subscale (Bandura, 1989), and the Learning and Study Strategies Inventory (LASSI) [Weinstein, Schulte, & Palmer, 1987]. All instruments were voluntarily completed at the begining of a two-day tutoring and study skills program presented at each student's school.

The Self-Efficacy for Self-Regulated Learning subscale is one component of Bandura's Multidimensional Scales for Perceived Self-Efficacy. Self-regulated learning efficacy is measured with eleven 7-point Likert-type items, with higher scores indicating greater perceived capability to use a variety of self-regulated learning strategies. An estimate of the reliability of this scale for the present sample revealed high internal consistency (Cronbach's alpha = .88).

The LASSI is a standardized self-report measure consisting

of ten subscales which measure both affective (Attitude, Motivation, Time Management, Anxiety, Concentration) and cognitive (Information Processing, Selecting Main Ideas, Study Aids, Self-Testing, Test Strategies) learning and study strategies. Each subscale is comprised of from eight to ten statements which students rate along a five-point agreement scale. Internal consistency estimates for this sample were good, with alphas of .75 for affect and .81 for cognition.

Results

Pearson correlations computed between the variables of interest are shown in Table 1. All bivariate indices reached statistical significance thus supporting the contention that both affective and cognitive strategies related to student efficacy perceptions of self-regulated learning. Affective motivation and concentration were most strongly associated with self-regulated learning efficacy; on average, about 35% of the variance between the measures was shared. Cognitive self-testing shared 31% of the self-directed learning variance. Taken together, these findings indicate that rural educators might foster these three strategies, which were closely linked to self-regulated learning. For example, motivation might be enhanced by prompting students to record the work they complete during class. Breaking study periods into short sessions might aid student concentration, whereas activities in which students create questions covering

the material could encourage self-testing.

Conclusions

Part of the self-regulating process in academic settings concerns the use of appropriate learning and study skills (Bandura, 1986). Both affective and cognitive strategy domains appear necessary to provide a more comprehensive picture of self-regulated learning. Such information could prove useful to educators challenged with keeping rural at-risk students in school. Additionally, although the question of causal ordering was not the focus here, this issue requires clarfication. The present study, which demonstrated the covariation of study strategies and self-regulated learning, may serve as an initial step toward clarifying the causal connnection between these educational constructs.

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Table 1

Correlations between Affective and Cognitive Study Strategies and Self-Efficacy for Self-Regulated Learning Scores

	Self-Regulated Learning		
Scale	r	prob.	shared variance
Affective Learning and Study Skills			
Attitude	.508	.000	26%
Motivation	.579	.000	34%
Time Management	.431	.001	19%
Anxiety	.341	.005	12%
Concentration	.604	.000	36%
Cognitive Learning and Study Skills			
Information Processing	.427	.001	18%
Selecting Main Idea	.535	.000	27%
Study Aids	.506	.000	26%
Self-Testing	.559	.000	31%
Testing Strategies	.463	.000	21%